



## Nettleton Road, Clifton

Two properties were purchased in this exclusive real estate area, a vacant stand and an existing house. The house was demolished and extensive earth works carried out to prepare the plot for the new house.

This involved creating a driveway up to the level of the new garage. To achieve this, the engineers designed reinforced concrete retaining walls on both sides of the drive way. Above that level, Terraforce L11 retaining walls were used to a height of 9 metres, some with scalloped and others with flat elevation.

These walls were constructed on reinforced concrete foundations that were in turn held in position with anchors through the foundation. At predetermined positions, vertical reinforced concrete columns were incorporated into the blocks.

These were in turn linked to another, horizontal reinforced concrete beam approximately half way up the wall height, which is tied back with soil nails up to 7m long into the benched embankment behind the walls.

Due to very poor access to the site and to reduce costs of removing & importing suitable fill material it was decided that the excavated decomposed granite material be used as backfill. To make this problematic fill work, it had to be reinforced with horizontal layers of restrain 50 geofabric placed at various levels in the backfill and locked into the L11 block facing layer.

For ease of maintenance, various terraces were specified between walls, with stairways connecting them. Planting was undertaken with hardy creepers and ground covers, including an irrigation system to ensure an even green cover in a short space of time.

**Wall contractor:** Decorton(Pty) Ltd

**Engineer for the wall:** Michael Arndt of Ace Engineers

**Contractor for soil nails:** Frankipile

**Landscape Contractor:** Real Landscapes

